

CLAIMS

1. A network stack layer interface for communication between software layers during network storage data transfer, the network stack layer interface comprising:
 - a header portion defining characteristics of the network stack layer interface; and
 - a buffer descriptor defining data, the buffer descriptor including a memory address pointer to the data, wherein information is passed between network stack layers via the network stack interface.
2. A network stack layer interface as recited in claim 1, wherein the header portion includes a common header portion and a layer specific header portion, the specific header portion defining characteristics utilized by a particular related network stack layer.
3. A network stack layer interface as recited in claim 1, wherein the buffer descriptor portion further includes buffer length data, the buffer length data defining a size for the data referenced by the memory address pointer.
4. A network stack layer interface as recited in claim 3, further comprising a plurality of buffer descriptors.
5. A network stack layer interface as recited in claim 4, wherein a buffer descriptor from the plurality of buffer descriptors defines command data.
6. A network stack layer interface as recited in claim 5, wherein the command data is SCSI command data.

7. A network stack layer interface as recited in claim 5, wherein a buffer descriptor from the plurality of buffer descriptors defines storage layer header data.

8. A network stack layer interface as recited in claim 7, wherein the storage layer header data is storage encapsulation protocol (SEP) header data.

9. A network stack layer interface as recited in claim 7, wherein a buffer descriptor from the plurality of buffer descriptors defines transport layer header data.

10. A network stack layer interface as recited in claim 9, wherein the transport layer data is simple transport protocol (STP) header data.

11. A network stack layer interface as recited in claim 9, wherein multiple buffer descriptors of the plurality of buffer descriptors define transport layer header data.

12. A network stack layer interface for communication between software layers during network storage data transfer, the network stack layer interface comprising:
a header portion defining characteristics of the network stack layer interface, wherein the header portion includes a common header portion and a layer specific header portion, the specific header portion defining characteristics utilized by a particular related network stack layer; and

a buffer descriptor defining data, the buffer descriptor including a memory address pointer to the data, wherein information is passed between network stack layers via the network stack interface.

13. A network stack layer interface as recited in claim 12, further comprising a plurality of buffer descriptors.

14. A network stack layer interface as recited in claim 13, wherein a buffer descriptor from the plurality of buffer descriptors defines command data.

15. A network stack layer interface as recited in claim 14, wherein the command data is SCSI command data.

16. A network stack layer interface as recited in claim 14, wherein a buffer descriptor from the plurality of buffer descriptors defines storage layer header data.

17. A network stack layer interface as recited in claim 16, wherein the storage layer header data is storage encapsulation protocol (SEP) header data.

18. A network stack layer interface for communication between software layers during network storage data transfer, the network stack layer interface comprising:
a header portion defining characteristics of the network stack layer interface; and
a buffer descriptor defining data, the buffer descriptor including a memory address pointer to the data, wherein information is passed between network stack layers via the

network stack interface, wherein the buffer descriptor portion further includes buffer length data, the buffer length data defining a size for the data referenced by the memory address pointer

19. A network stack layer interface as recited in claim 18, further comprising a plurality of buffer descriptors.

20. A network stack layer interface as recited in claim 19, wherein a buffer descriptor from the plurality of buffer descriptors defines command data.